

REMARKS

Claims 1 to 7 are pending. Claims 1 to 7 stand rejected under 35 U.S.C. §102 on as anticipated by U. S. Patent No. 6,340,801 (Fukuda et al.).

Applicant's respectfully traverse the rejection and submit that Fukuda et al. fails to disclose the recited structure. There are at least three recited elements in claim 1 that are not disclosed in the Fukuda et al. reference.

First, Claim 1 recites: "(a) the state between the A-channel and the C-channel switches between the first state and the second state **at each rotation** of the rotary member for the click angle." In the encoder disclosed in Fukuda et al., the state between the A-channel and the C-channel alternately switches between the first and second states as a rotary member is rotated from AI in either direction by an angle corresponding to a single click. In contrast to the structure recited in Claim 1, however, when the rotary member is rotated from AI toward AIII, the state between the A-channel and the C-channel does not change. Therefore, the encoder of Fukuda et al. does not switch states **at each rotation** of the rotary member. Thus, the structure recited in element (a) of Claim 1 is not disclosed in Fukuda et al.

Claim 1 also recites

(b) as the rotary member is rotated for the click angle in one direction from a reference phase where the state between the A-channel and the C-channel is in the first state while the rotary member is stabilized by the click mechanism, the state between the B-channel and the C-channel remains unchanged from the first or second state, and

(c) as the rotary member is rotated for the click angle in an opposite direction from the reference phase, the state between the B-channel and the C-channel **switches twice** between the first state and the second state. (emphasis added)

In the structure disclosed by Fukuda et al., the state between the B-channel and the C-channel remains unchanged when the rotary member is rotated from AI or AIII in one direction by an angle corresponding to a single click. However, when the rotary member is rotated in the opposite direction by an angle corresponding to a single click,

switching between the first and second states occurs only once and the state between the B-channel and the C-channel changes from the state it was in before the rotation.

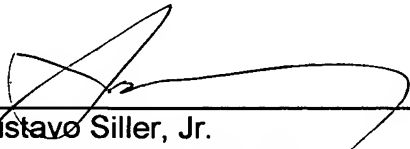
Moreover, in the structure of Fukuda et al., the state between the B-channel and the C-channel switches between the first and second states only once when the rotary member is rotated from All in either direction by an angle corresponding to a single click, and the state differs between All and Al (AIII). Therefore, the structure according to Fukuda et al. does not disclose the structure recited in paragraphs (b) and (c) of Claim 1.

The differences between the claimed structure and the structure of Fukuda et al. are emphasized by the waveforms produced by the structures. The waveforms obtained by the encoder of the present invention are shaped as shown in Fig. 6. of the present application. The waveforms obtained by the encoder of the structure of Fukuda et al. are shown in Fig. 6 of Fukuda et al. As can be seen, the waveforms obtained by the recited structure are different from those obtained by the encoder according to Fukuda et al.

SUMMARY

Pending Claims 1-7 are patentable. Applicant respectfully requests the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned attorneys for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,



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